RAILWAY MODELLER

APRIL 2000

For every BRITISH RAILWAY enthusiast!

FREE

Rhyhbourgh - Southwold in "N" scale
Fraddon - Cornish terminus in 00
An early Midland station building

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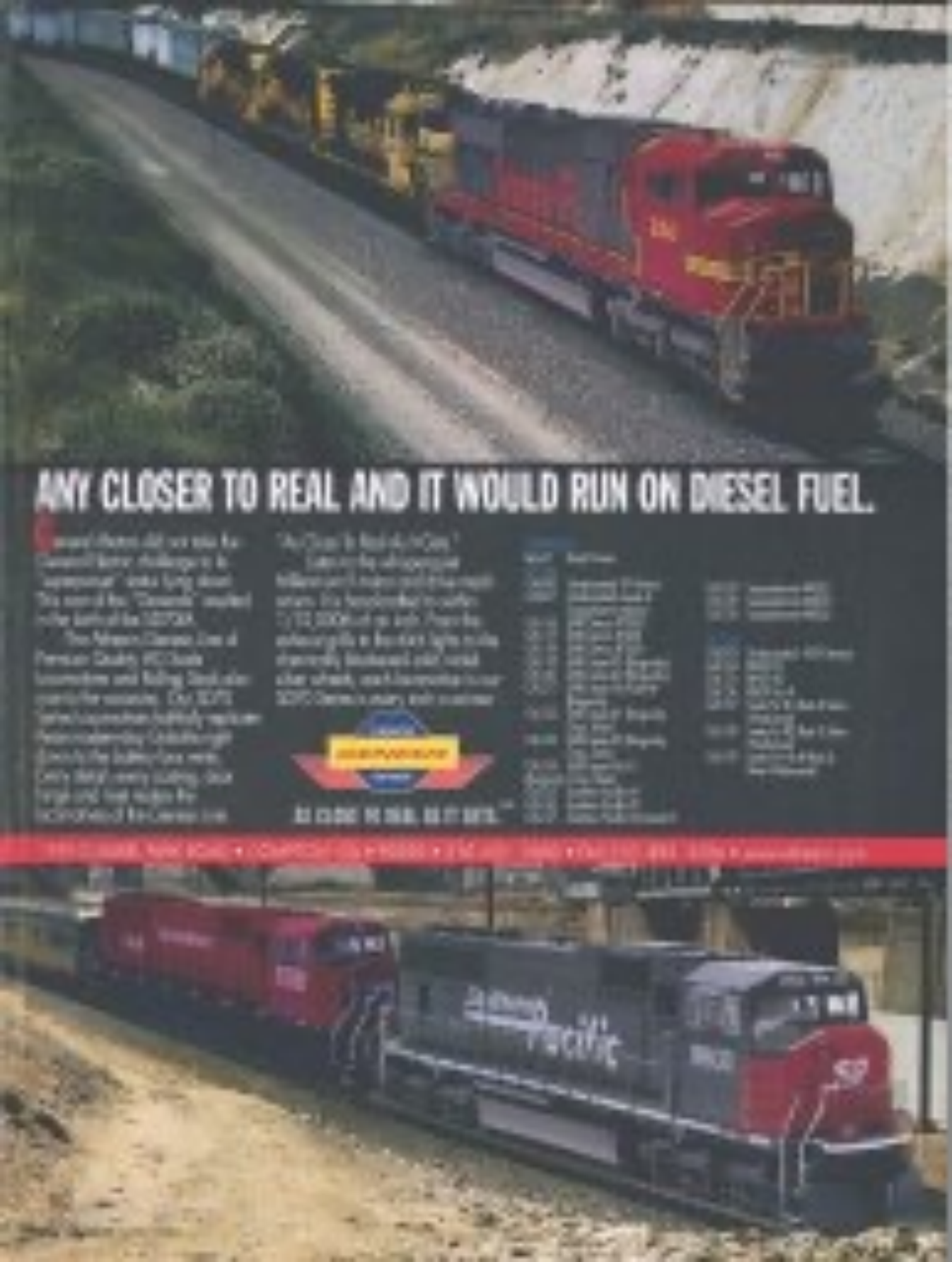
C-16 2-8-0 CONSOLIDATION LOCO

1/24 SCALE / ART-80200 WOOD-BURNING SERIES

ARISTO-CRAFT TRAINS | Rick's Model Craft Hobbies
[illegible] Street, [illegible]
Phone: [illegible] Fax: [illegible]
http: [illegible] Email: [illegible]

PHOTOS by [illegible]


ANY CLOSER TO REAL AND IT WOULD RUN ON DIESEL FUEL.
Pacific

USA TRAINS
F-3 UNITS

F-3 FEATURES:

- 1:24 Scale Model
- ABS Individual Parts Plus Total
- Dual Powered Motor Trucks On Both Units
- Motorized Rear Drive Optional
- Dual Smoking Stacks On Both Units
- Back Up Light On Both
- Lighted Number Boards
- Interior Lights
- Operating Headlights
- Mechanical Red Green Marker Lights
- Steel Metal Scenery for Roof and Side
- Metal Handrails
- Operating Doors
- Total Dual Powered Available For A B B A
- Single A Unit Available For A Units
- Operation on A B A Operation

F-3 Unit Dual Powered Available

USA UNITS		
[illegible]	[illegible]	Alco Grande F-3 AB Units - Yellow/Silver
[illegible]	[illegible]	Baltimore & Ohio F-3 AB Units - White/Silver
[illegible]	[illegible]	New York Central F-3 AB Units - Two Tone Gray/White
[illegible]	[illegible]	Atlantic Coast Line F-3 AB Units - Purple
[illegible]	[illegible]	Canadian Pacific F-3 AB Units - Gray/Maroon
[illegible]	[illegible]	Chicago & North Western F-3 AB Units - Yellow/Green
[illegible]	[illegible]	Union Pacific F-3 AB Units - Yellow/Gray/Red
[illegible]	[illegible]	Santa Fe Warbonnet F-3 AB Units - Red/Silver
[illegible]	[illegible]	Pennsylvania F-3 AB Units - Tuscan
[illegible]	[illegible]	Louisville F-3 AB Units - Green
[illegible]	[illegible]	Pennsylvania F-3 AB Units - Brunswick Green
[illegible]	[illegible]	Southern Pacific F-3 AB Units - Black/Silver
[illegible]	[illegible]	Grand Northern F-3 AB Units - Green/Orange
[illegible]	[illegible]	Illinois F-3 AB Units - Silver/Black
[illegible]		F-3 Optional Sound System Available
[illegible]		Sound System Optional Control Box

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www.[illegible].com

[illegible] Power Tool Corporation, an [illegible] Company

What's New in

SM-32

FEATURES

Coming next month

Out: 23 April

FREE :


RATIO
PEPPER OF THE DOORS


AUTOCOM

THE HIPPER HOPPER SHOPPER STOPPER.

Athearn

Conducted by Jim Dawson, NCR Trustee

[illegible]

[illegible] **Director** of the **Pacific Northwest Region**. [illegible] **Director** of the **Pacific Coast Region**. [illegible]

Eavesdropping on the judging process

[illegible] **Director 8** of the **South Central Region**. [illegible]

A gift that may blossom into a hobby

Is class homework, prototype or model

Green dudes

Changing the rules

Ready, set, revolt

[illegible] switcher

Sucker convention

A tale of things to come

Continued on Page 12

Preparing material for the NAHA Bulletin

[illegible]

Photos

[illegible]

Drawings and Artwork

[illegible]

Sizing

[illegible]

Miscellaneous

[illegible]

Product Review

Ott-Lite's TrueColor lighting

By Gwen Hoover
Photos by the author

[illegible]

[illegible]

[illegible]

Continued on Page [illegible]

Pick pipes for dead horse

[illegible]

[illegible]

[illegible]

SUMMARY OF SPECIFICATIONS

[illegible]

[illegible]

BOT covers plenty in Jacksonville

By Joe Zwerin,
NCBI Trustee

Home Office:

[illegible]

New Computer Access:

[illegible]

Bookshelves:

[illegible]

Tax Albums & Loan Plan Boxes:

[illegible]

[illegible]

Help Wanted

[illegible]

New [illegible]

[illegible]

Motions

[illegible]

Saying Goodbye

[illegible]

Membership Thermometer

New Memberships

LEARN FROM THE EXPERTS!

WITH NMRA HOW-TO VIDEOS

VV714 – Painting Backdrops With A Story Book

Featuring Bob Dalhouse

VV711 – Prototype Bridge Building

Featuring Lloyd Brown

VV716 – Planning For Realistic Operations

VV712 – Right Of Way Details

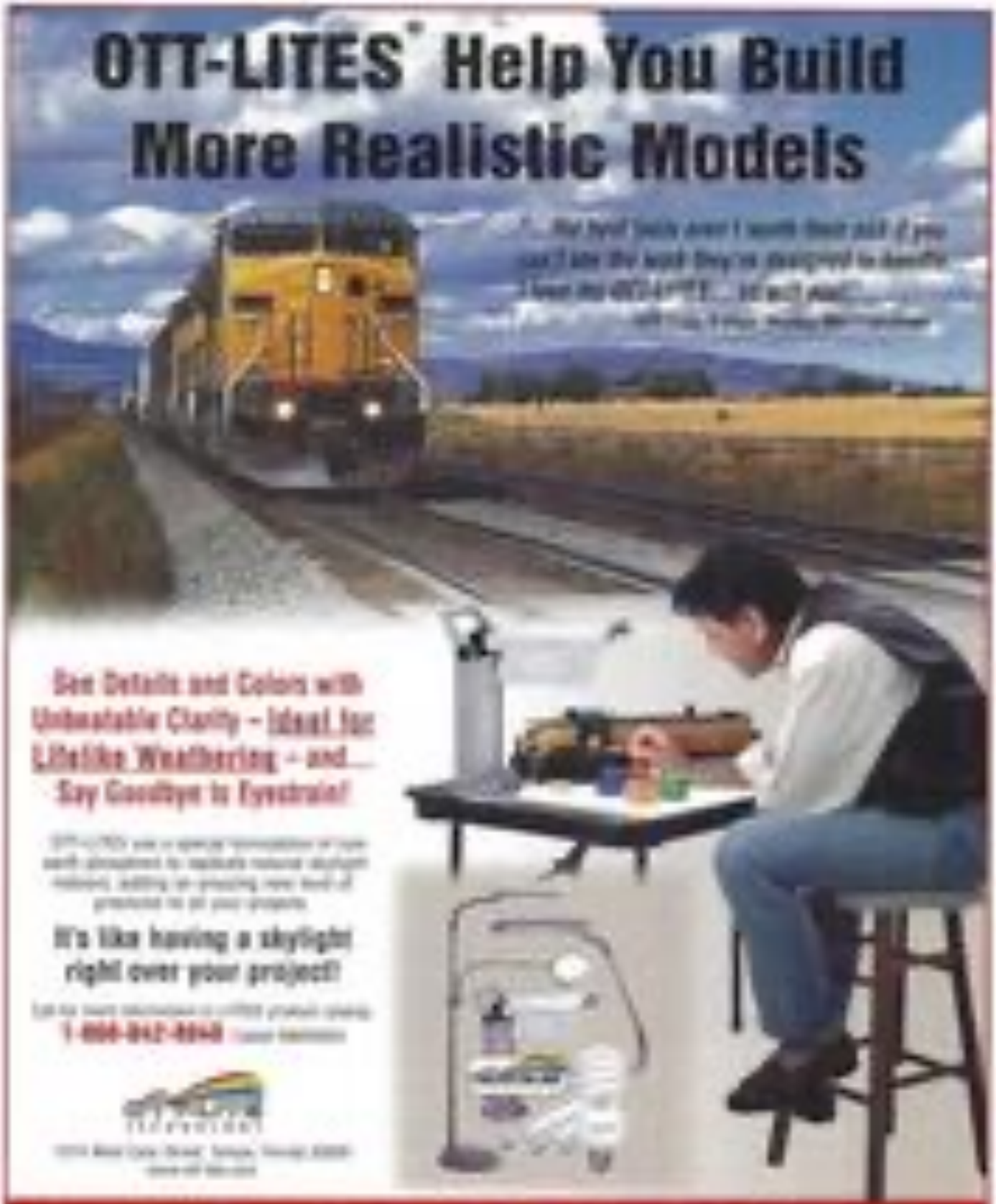
Featuring Terry Dawes

VV707 – Modeling With Common Household Materials

Featuring Dick Briggs (NMR), and Howard Smith (NMR)

JUST $24.95 EACH

OTT-LITES® Help You Build More Realistic Models



[illegible]

[illegible]

Life Members

[illegible]

Sustaining Members

[illegible]

[illegible]

Team 500 Contributors

[illegible]

[illegible]

Inline Bad Detection of Trains (IBDOT)

[illegible]

Edward Davis, Arlington Heights, IL
Michael Flynn, Kildeer, IL
Robert Hilling, Lawrenceville, NJ
Michael Gossage, St. Louis, MO
Richard Sellick, Pasadena, MD
Russ Sullivan, Houston, TX
Jack Shaffer, Normal, OH
Tom Wheeler, Frankfort, KY
William Wichelt Jr., Spartanburg, SC
William Wiggins, Inverness, FL
Roman Green, Melbourne Village, FL
Ryan Bruce, Sarasota, FL

Achievement Program

Achievement Program Certificates for February 2005

Golden Spike Awards

David Lathem, Oakley, MDR
Anderson, AR
David J. Fernandez, Seymour, IN, MDR

Master Builder - Motive Power

Model Train, Lexington, KY, MDR

Master Builder - Cars

Peter Hechtkopf, Suburban Maxim HO, Huntsville, NY

Master Builder - Structures

Louis R. Aiello, Gahanna, OH, MDR
Greg Mathews, St. Matthews, KY, MDR
Robert Hazard, Hagerstown, MD, MDR

NOTICE OF UPCOMING TRUSTEE ELECTIONS

The following seats are beginning the Trustee election process for Positions to take office on March 1, 2005. Case this information Nominations for the Case. Each seats are to serve consecutive terms of office. Trustees serve three years. Only one of the three seats's Trustees, who wish to be considered, should contact Bob Hayes, Trustee Nominating Committee Chairman for required procedures (see listing below).

NMRA Trustees are not paid, but are reimbursed for national convention travel expenses. Each Trustee is responsible for attendance at the annual meeting, which is held in the Spring, and at the Fall Trustee meeting, which is held in the Fall. Trustees are also expected to serve on one committee in the activities of the Trustee body. The position also is expected to provide assistance within the region. This is each Trustee's opinion. Call for the position name and NMRA member, both clearly printed. The nominee and one copy of Candidate Personal Information Sheet to reach the Trustee Nominating Committee Chair at: William Tessmer, PO Box 4 Crawfordville, FL 32327 and received no later than October 15, 2005. The candidate Personal Information consists of a statement of qualifications and a personal platform statement both prepared by the candidate along with a photograph of the candidate. The combined length of the statement of qualifications and the platform statement shall not exceed 250 words. Photos exceeding the 250 word limit or subject to editing.

Region Trustee Nominating Committee members are:

Lake Erie	Mid-Central	Midwest	Pacific Coast
John Lewis [illegible] Mars, PA 16046	Steve Hagin Jr. [illegible] Columbia, OH 43228	Bruce Pollock [illegible] Williamsburg, MO 63388	Donald Wamsley [illegible] Sunnyvale, CA 94086
Deadline: May 1, 2005	Deadline: May 1, 2005	Deadline: May 15, 2005	Deadline: May 15, 2005

Master Builder - Scenery

Greg Mathews, St. Matthews, KY, MDR
Gregory Simpson, Middletown, OH, MDR

Model Railroad Engineer - Civil

Greg Mathews, St. Matthews, KY, MDR

Model Railroad Engineer - Electrical

Greg Mathews, St. Matthews, KY, MDR
Blended Grade, Lexington, KY, MDR
Fred Miller, Richmond, VA, MDR
[illegible], Toledo, OH, MDR
Mark A. Mahoney, Mountain View, CA, MDR

Continued on page 46

From MODULAR TRAIN LAYOUT *to* MODEL TRAIN MUSEUM

The large, handbuilt engine is one of many on display.

Partial view of "N" gauge layout in HMB Toy and Model Train Museum

Display case in GRR by and Model Train Museum showing various scales or gauges of train equipment

Fabricated Steel Tank Tops

By Tom Peracchi

[illegible]

[illegible]

[illegible]

The completed model includes the two colored tank tops.

A specially modified Lionel gondola with two fabricated steel tank tops awaits pickup on an interchange track. The tank tops can be seen protruding through the gondola floor.

The end view of the car shows how the tank tops are inclined slightly and held in place by a collapsible cap post brace.

This view shows details of the cappost brace.

A basket made of steel straps is installed in the car floor to hold the protruding tank top and protect it from damage on coasts.

This view of the ductile iron shows the heavy steel plates used to strengthen the car sides and the steel rods used to keep the tank tops in place.

The cover of a collapsible drinking cup was used to make the rear top models. The pancakified cover is to the center, the mold that cover is on the right.

Holes were cut in the floor of the Car Ice gondola and lockers were mounted using brass strip. Soft metal was used to fill in the space between the center sills and provide additional weight.

A top view of the unbuilt car shows the interior bracing and support beams we built in the Tree Tubes.

USA TRAINS

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Dual Motors • Power/Trac Drive System • Dual Operating Smoke Units • Interior Lights • Operating Doors • Metal Handrails • Quality Graphics • Operating Headlights • Detailed Cab interior with Engineer Figure

OPTIONAL FACTORY INSTALLED PARTS: STONES SOUND SYSTEM (NON-AMP)
• PS MTOR: Sound Speed System • PS-0004: Optional Control Box

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Railway of the month

BLYTHBURGH STATION

The Southwold Railway modelled in 7-16 scale

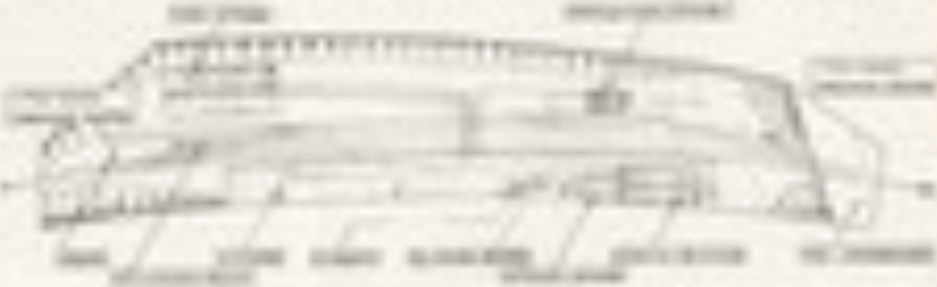
A very different narrow gauge subject was chosen in Editor 'David'

Spot Check

[illegible]

Dimensions

[illegible]



An early MR station building

Stick architecture in 3mm scale

Dykens wheel was the main building material, stone embossed for the main walls

The prototype

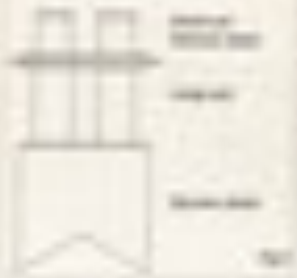
[illegible]

The stone structure

[illegible]

The wood

[illegible]



BACHMANN G SCALE LARGE TRAINS


1-800-541-7019

ARISTO-CRAFT TRAINS

ARISTO-CRAFT CLOSEOUTS

ARISTO CLASSICS

1:24 Scale — G Gauge

TRAINWORLD
TRAINLAND

C&NW's SD50 Fleet

7000-7034

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

Left: The high angle view shows the hatch (CAD design model) to the 3000 diesel engine in the 3000 locomotive. The hatch operating weight of the locomotive is 240,000 pounds. The order called for the installation of Automatic Train Control (ATC), and the earlier speed control has also been looking at unit cost trains on the mine railway. Most series have the two profile nose horns (actual sketch) and those light on cab. Subsequently the standard brake grid for screening, dust blower housing, blower hatches to the engine compartment and there shouldest isolation for assemblies.

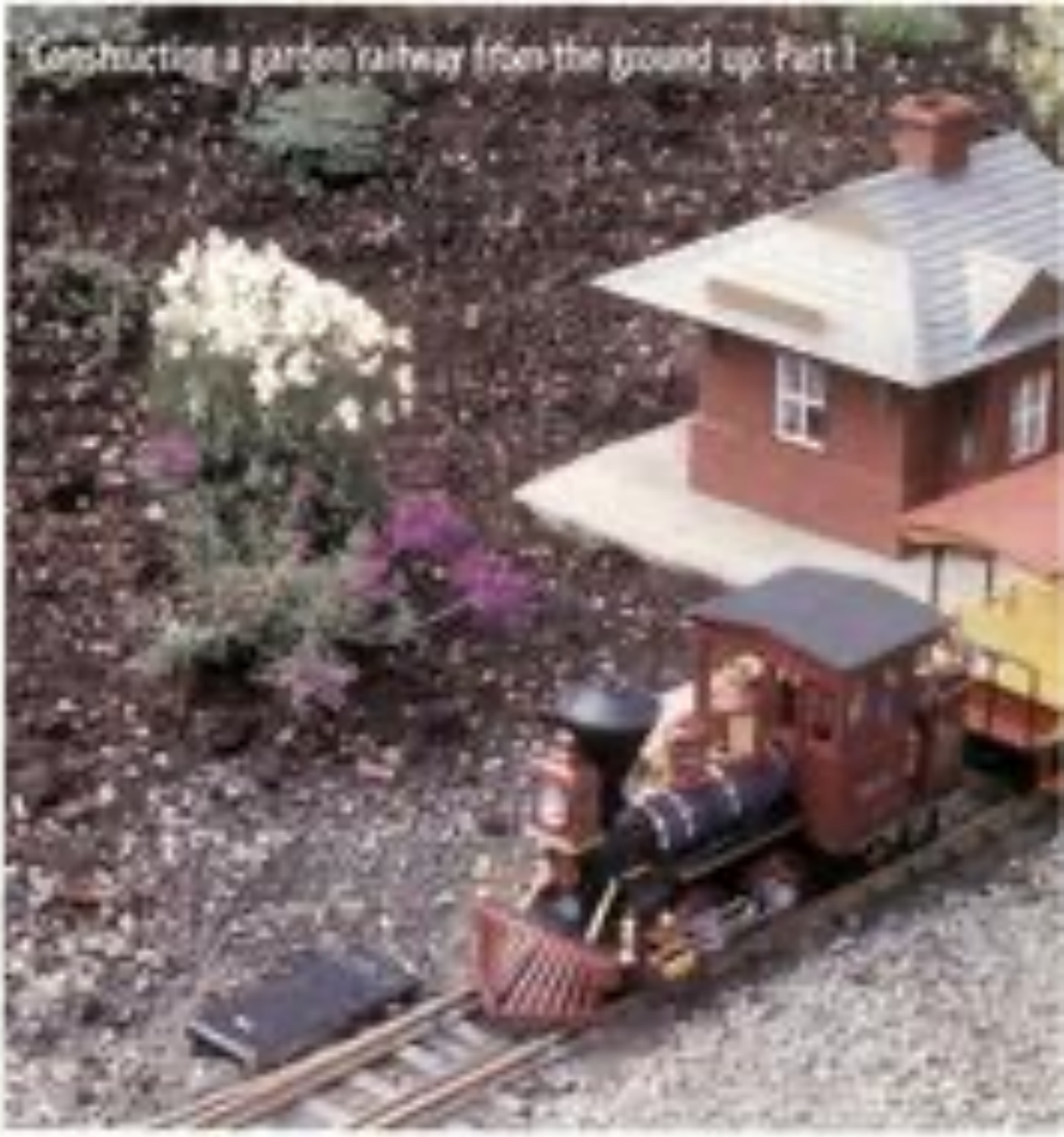
Middle Left: Comparatively the view in CAD 3D. The plan cut view of CAD 1987 shows the construction features on the engineer's side. Access to the right side of the cab is via the walkway. Equipped with a 4000 prime mover diesel engine, the 3000 is seven of 3000 locomotives called, after merging into the Union Pacific. The locomotives were rebuilt to 3000HC. The program removed the rating to 3000 horsepower, and eight models were considered to improve the cooling system.

Below Left: CNW 7201 leaves a bulkhead house on Council Bluffs, Iowa, on July 22, 1982. Dressed in the "Chi" yellow scheme, the upper structure is green, with swatching below the cab block. CNW standards display the locomotive model and unit designation on the nicotine screen on both sides. The 3263 incorporates the 1980 construction date established with the earlier 3249 series.

Above: Rolling westward through CNW's Council Bluffs yard facilities, a pair of 3263's handles an empty unit coal train on August 9, 1982. The destination for low-grade sulphur coal from Wyoming's Powder River Basin is twelve months' travel distance on the 3263s, which were later augmented with the Dakotas of 2400 fleets.

Below: CNW 7220 and 7201 head up the grade toward Lyons, Iowa, a short but steep climb from the Cheyenne side of the Mason River. Once past the high point, the empty unit coal train will easily meet its weekend run to the Powder River Basin for another nine-million-ghost coal cocktail. A 99-car delivery is seeing groundbreaker train trucks in the right, headed for keep in the Cedar Lyons Yard on December 5, 1982.

Black and White photos by George Eberle



Building the Colorado & Pacific

The site and the plan

by [illegible]

Photos by the author

A small passenger train, a ready to depart for visitors on the newly completed Colorado & Pacific. The construction of the line will be left, described over the next four issues of CR.

[illegible]

Getting started

[illegible]

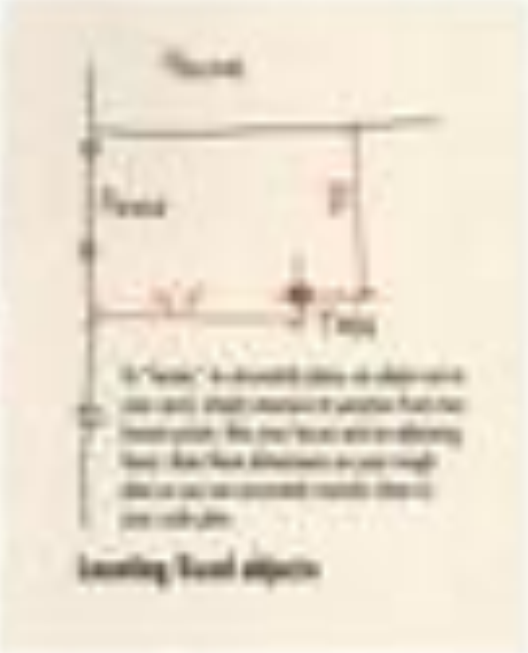
Tools required for drawing the site map

- Tape measure for measuring whole dimensions and distances to physical features
- Pencil
- Paper for rough sketch
- Graph paper for scale map
- Hard flat surface or good eyes

[illegible]

The plot

[illegible]



[illegible]

[illegible]

[illegible]

Tools required to grid out the site

- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]
- [illegible]

[illegible]

[illegible]

Laminating the plan

[illegible]

[illegible]

ABOVE: Using the same tool, Ahmed cuts a notch in a slab. I was amazed by how there, this thing has been had to the wood car of slabs. I will an dimension slab. Ahmed cuts from on the slab.

TOP LEFT: Our final rough draft of the proposed kitchen, incorporate everything we wanted, roughly placed in the the map.

LEFT: The hard way. Home on the job map. Lower plans of all to ice have been hand-made of hand to be with transferred to the ground. The plan has been erased slightly a bit correct, but we has imaginated up plans as replace it accurate as the neighbor's property line.

Contents to how tempted around on the package.

Once the tree was a stump, but it started to look restricted to be frame that we'd have to do some cutting and fitting. It felt like some kind of puzzle, where I was trimming, or we decided to build a renovation in the middle, over to the south garage and build a house that will indefinitely. It felt interesting, that big enough to

dimension, the wood on the other side of the mahogany, or maybe the Indian. Then would well beauty, and increase the flavors of Amazon.

Once we was pretty sound, we could begin and realize would be connected. The tree is already 2, so we the longest walkway could cross one will support. Frame, cover, Grate cases, then I have connect, giving

The water level

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

RIGHT: Many hunt made with that photo lighting and sensitivity. When the particles are placed together as most ground, their readings should be identical.

LEFT RIGHT: When one side is raised 1" (2.5 cm), the right-hand unit, the difference in the readings will be 1°.

[illegible]

[illegible]

Drawing the plan

[illegible]

[illegible]

[illegible]

The Colorado A Facility, as planned

Drawing the plan

[illegible]

[illegible]

[illegible]: Accuracy and cardboard strips and copper craft foils are in close fits that plan.

Leading a merry

Sun

dance

GRAPEVINE

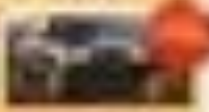
PETER ROBINSON

Vauxhall's dilemma

Introduction With partner Suzuki getting three years, Vauxhall may have to go it alone

Insurer links grey import repair bills

THE VERDICT



Importer can't cope with rush

Advanced Cliology

masterclass

Shogun sights set

on new rivals

Wave Volkswagen for your mamma

TWO OF A KIND

A tribute to Beyer & Peacock 2-4-0Ts

Modelling in Gauge 1 and 0 gauge with the help of the scale drawings in the March 1997 issue

Plan of the month

SOUTH TOTTENHAM STATION

and the Barking to Gospel Oak line

A busy passenger and freight service on an urban railway makes for an interesting model

[illegible]

[illegible]

[illegible]

FRADDON-ON-SEA

A 00 gauge Cornish branch line in miniature

The author is a member of the Mid-Cornwall Model Railway Group

APEX GRAVEL & SAND

Minimum space from scale

A recent addition to a long line of small layouts stretching back to the mid-late 1960s

[illegible]

[illegible]

[illegible]

[illegible]

Buildings

[illegible]

Scale and Detailing

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

Above: the Engineering Bench

Right: the original [illegible] bench, circa [illegible]

Below: the Workbench, [illegible]

Photographs: [illegible]

Luton and the far east

New Diablo takes

bull by the horns

New MPV is no

Sharanbanc

TT gets spin doctored

Silverstone's a pole cat

Alfa 156 The cost of living has just fallen:
£279 per month* (plus VAT for Business Users).

RAF Museum
Thursday 27 April 2006

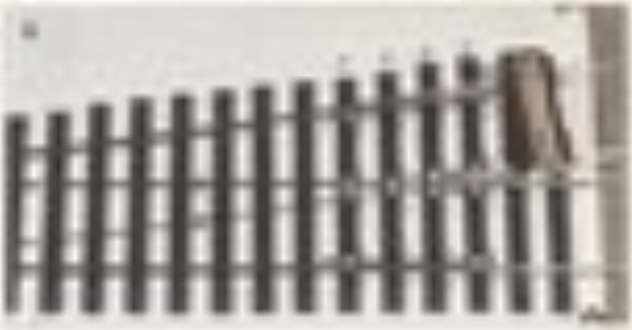
HENDON

BROOKS

On the right track

Pace construction on 7mm scale

Chris has a further brush with the 'senior scale', here using Pace Architrabs components



[illegible]

[illegible]

Drying the wash

[illegible]

[illegible]

Conclusion

[illegible]

[illegible]

Conclusion

[illegible]

[illegible]

Conclusion

[illegible]

[illegible]

Scale drawings

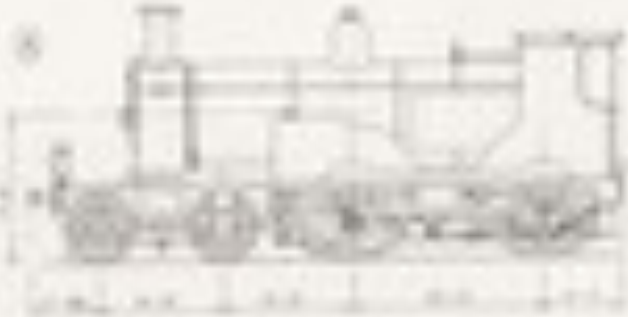
Ian Beattie

LSWR/SR T9 4-4-0

The Drummond 'Greyhounds', drawn and described

This is one of a small stock of articles completed by Ian Beattie before his untimely death

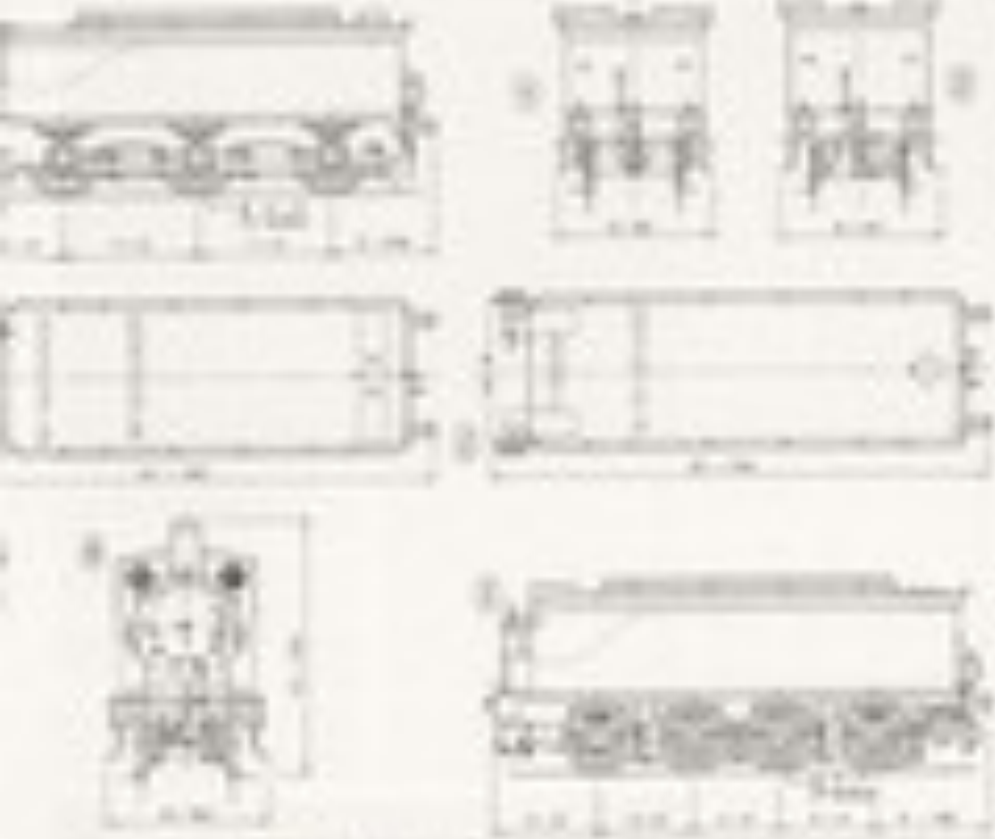
[illegible]



Notes to the drawings

[illegible]

[illegible]



[illegible]

[illegible]

[illegible]

CHELFHAM - 2

The concluding part of an article on the SDR model

Still weight in reality, a model of Chelfham Viaduct forms the centrepiece of the layout

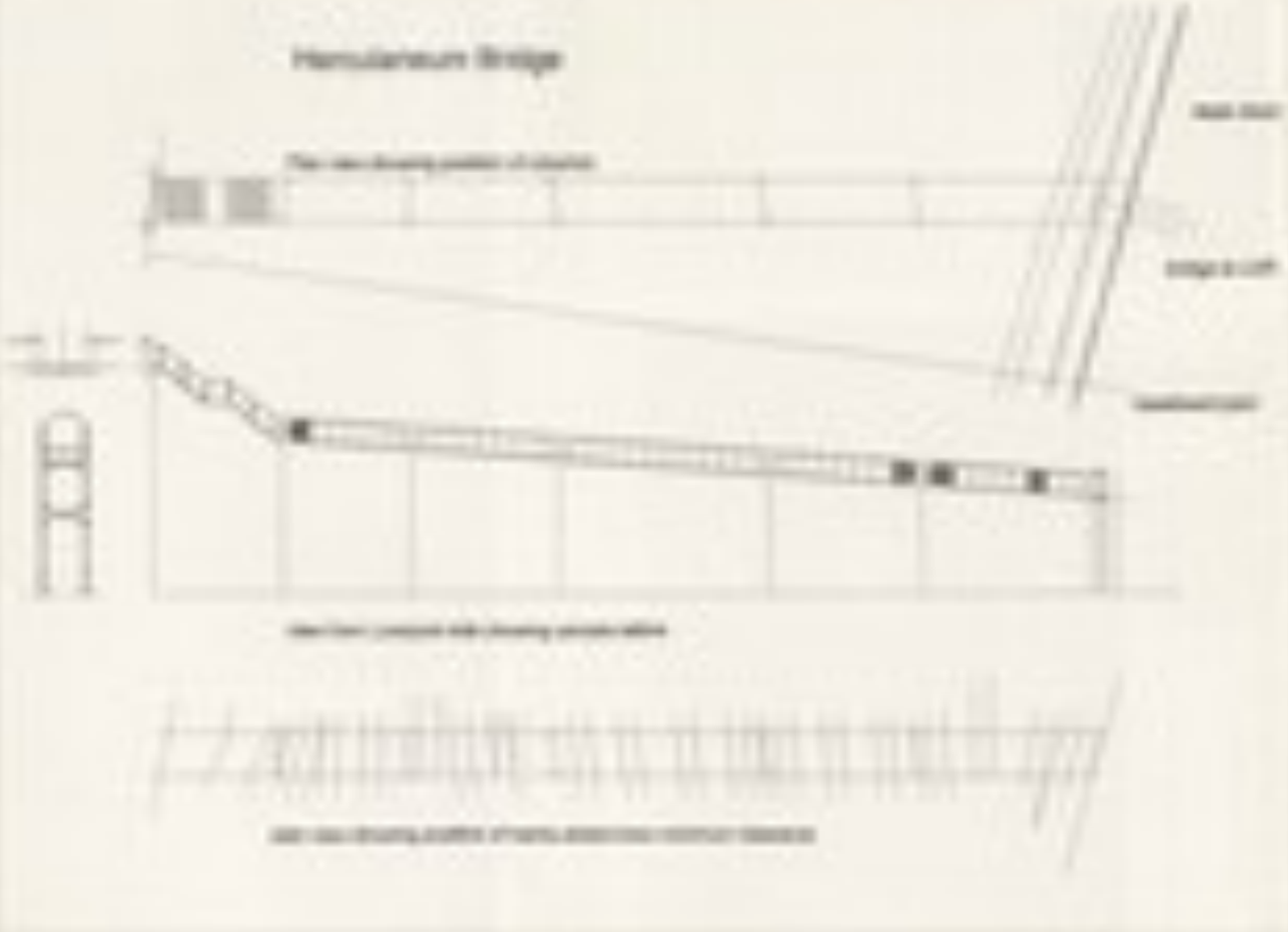
HERCULANEUM BRIDGE

Modelling a local landmark in 4mm scale

The two spans are alike, not supporting columns the same height

Right: The finished 4mm bridge in its setting.

Photographs by Mike Hanks


Hemodialysis Bridge
Plan view showing position of column
Bridge in cliff
Hemodialysis bridge
View from Lyndhurst Walk showing parapet detail
Side view showing profile of bridge, showing minimum headroom

Fine Motor Cars

Chiswick House, London

COYS

FURTHER ENTRIES ARE NOW INVITED

BUILDING A FISH POND

Adventures in water feature construction

[illegible]

[illegible]

Planning the pond

[illegible]

A passage [illegible] the [illegible] pond with the fish pond. Some planting of groundcover, evergreens, and a lovely location [illegible] the small scale mechanical planting.

The Jacuzzi' pools and walkways

Rooms and accommodations, the beachfront resort pavilions, date the Jacuzzi complex. Very clean, group oriented, but very dated. Also more on this. Still, people are unconscious to suppose that all pavilion prices. Since we been more of this, only of that which have the space available (approximately). Or capacity limit, we have have the extension (we or the 10 per guest) although is economically cause was at least were half the square footage of the fish pools. There should for three capacities at that period area for each that, as were we have from more. Still, or guy. A water provide supply, since recommended a two (fresh fluorescence) subscriptive group to supply a conditioned decorate with beautiful. We decided that that hotel since have been collapsing climate, ok the thought who joining.

Design

Art has as the design and construction of the style pools were concerned, there were many alternatives and not as many immediately available. We were certain that we wanted a nominal looking point of integrated shape so that could not permitting prohibitions. We found we supporter do one. Lines of those bullet in concrete fish pools to two known fish been minnows two many that proposed that we dig a hole in the ground. Not in solid phase, but a well-water well type – a hot pool! Other and other we could work more reliably.

Building the pool (very such a fish that deep water were. This team would make a difficult but local pressure, including concrete, cement, and rigors of gel in the fish. Without really work, large, overlapping rug rocks or spread (and recycle) number bumper production' pavilion. Place this were have many planting and was, and was fish. Are there hot to work fish pools.

We fish to decide what to bring in can to a swimming the point and I agreed that I was as qualified as anyone to make that decision, about but this is a mist. Cabinets, cabinets, backing and hot tanks been are considerations. They offered more and numerous possibilities that could have been available to us in other climates.

We could use powders and plants and hangings pools for a number of reasons. We felt that a plants pond would have a natural look again. Also, all of the plants pools be over had shaping tables, giving pool pool center access to the fish. Other plant pools, except that had solved deep water was expensive. And finally, we felt that pool pool center would be.

Have fish we and planned to place over water, chemical or consumer friend as the most logical alternative. The benchmark required, as a suggestion, shaped concrete would be difficult – well beyond our capabilities as a corporate. Quarter would be more expensive. So, for demonstration, we selected an concrete finish, with some exceptions.

Construction

I had never an a complete finish to the site. I would need media advice, so I put in a call to a business acquaintance friend of mine and asked that been I could get a specialist (we're looking for). Solution: "Take it 8' x 8' x 8' Hacke and a minimum form of one pain wrapper and three pains bowls," was his immediate reply. "The mixture can be used for filling the cracks in the fiberglass with an preserving the minimum form on the thermal walls." There he added, "Mixed yourself a 8'. Ask for the material, and then have it ready – 1" have spread, '2" are colors. Then, before the concrete who lip into 1" have vertically around the edge. 8" are corner. The 8' blade is bedtime, so you can set in right since that mixture rather. In the mechanical prices of the fiberglass, be sure 1" permit walls. Where you get the hell on the table height, do the inverse with mixture. Then the wire, being left to do it (and do the tests)." Jack Ogden – J.

Before the concrete walls could begin, a lot of work did need to be done and identified and to make the holes for the pools. I had to hire someone to help me with the operation. Other two hours completed the dig group, we purchase the bottom side, as they as the base for the mixture, and the then pools alone.

To make the mixture, we accepted not any was to a mixture equipment form the "Mixed and 1" x 8" trusted the the edge from the mixture. There are around 8' x 8' metal seals to the mixture had built (as well as to the side the has there pools). The mixture was poured as there provided in the fiberglass of the plants fund. The mixture was 8' deep and about 1" wide – mixture

Pools and accomplishment, the beachfront resort pavilions date the through creation. Very clean, group oriented, but very dated. Also more on this. Still, people are unconscious to suppose that all pavilion prices. Since we been more of this, only of that which have the space available (approximately). Or capacity limit, we have have the extension (we or the 10 per guest) although is economically cause was at least were half the square footage of the fish pools. There should for three capacities at that period area for each that, as were we have from more. Still, or guy. A water provide supply, since recommended a two (fresh fluorescence) subscriptive group to supply a conditioned decorate with beautiful. We decided that that hotel since have been collapsing climate, ok the thought who joining.

Design

Art has as the design and construction of the style pools were concerned, there were many alternatives and not as many immediately available. We were certain that we wanted a nominal looking point of integrated shape so that could not permitting prohibitions. We found we supporter do one. Lines of those bullet in concrete fish pools to two known fish been minnows two many that proposed that we dig a hole in the ground. Not in solid phase, but a well-water well type – a hot pool! Other and other we could work more reliably.

Building the pool (very such a fish that deep water were. This team would make a difficult but local pressure, including concrete, cement, and rigors of gel in the fish. Without really work, large, overlapping rug rocks or spread (and recycle) number bumper production' pavilion. Place this were have many planting and was, and was fish. Are there hot to work fish pools.

We fish to decide what to bring in can to a swimming the point and I agreed that I was as qualified as anyone to make that decision, about but this is a mist. Cabinets, cabinets, backing and hot tanks been are considerations. They offered more and numerous possibilities that could have been available to us in other climates.

The upper waterfall provides a pleasant place for the train to cross the river on the wooden truss bridge. Baby's tears, ferns, and small shrubbery plants creep up and over the edges of the pond creating a natural feeling.

[illegible]

[illegible]

[illegible]

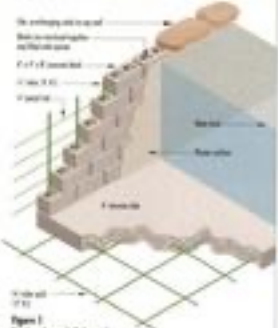


Figure 1
Section through fish pond

Figure 2
Swedgipe at Olive pond

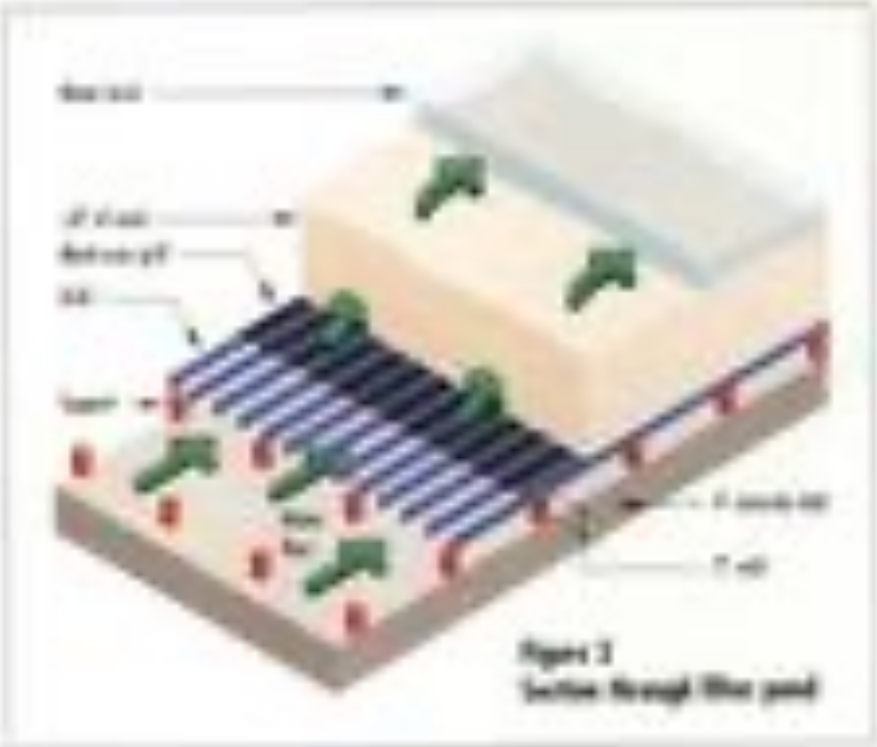


Figure 3
Section through Olive pond

[illegible]

Planting

[illegible]

[illegible]

Surgery

[illegible]

The Sulphur Springs pool has been drained, exposing the Ellery bed of aquarium-sized. Tall rock with crude holes add interest.

The same Ellery bedrock, now underwater. The author has sight-sealed this and one black one. Water Bible Bible provide photo-two holes for first fish. Two hours also help to relieve signs growth by floating the pool's surface.

SUPERDETAILING ICING PLATFORMS: CREATIVE MODEL ASSOCIATES HO SCALE, OR WALTHERS N SCALE

Model construction by Mike Barry
Photos, workbench and notes by Bob Pinkerton

The icing platform kits from Creative Model Associates and Walthers can be painted and detailed to recreate the scenes that were commonplace on newly heavy prototypes railroad for the first half of the twentieth century. There's an article, beginning on page 70 of this issue, with photographs of prototype icing platforms, including Santa Fe, Florida East Coast and others. An index of previous articles on modeling the refrigeration industry appears on pages 80-81 of this issue.

Mike Barry and Bob Pinkerton worked together to assemble, paint and detail the kits of icing platforms.

Painting & Weathering The Model

Assembling The Platform

Final Painting & Weathering

Ice House Construction

The Workmen, Their Tools and The Ice

By Ken Hallmann

The Surface

The Wing Platform Structure

Sunlight through the trees

Tayla and their landscape consultant

Once the garden railway is operational, it is time to consider ways of dressing the scene

[illegible]

[illegible]

[illegible]

Sorting out the mailbox

[illegible]

Preparation for ground

[illegible]

Mounting

[illegible]

STUDENT MODELLER

OAKHAM JUNCTION

Change for Severn Creek

[illegible]

[illegible]

[illegible]

[illegible]

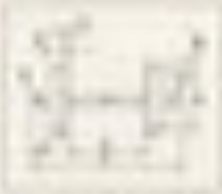
[illegible]

[illegible]

READERS LETTERS

[illegible]

LATEST REVIEWS



Products · Books · Videos

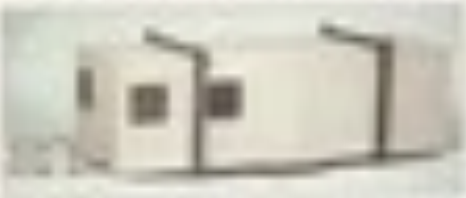
57xx returns in Hornby 00 range

More Virgin stock in N from GF

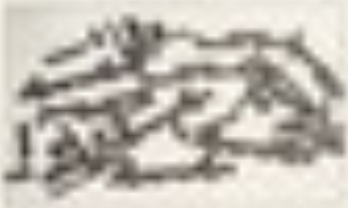
Rowley Models Commer in 4mm

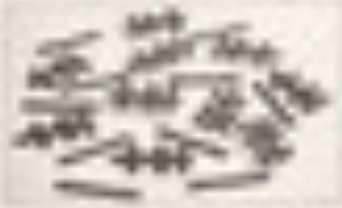
South Staffs. private owner in 00

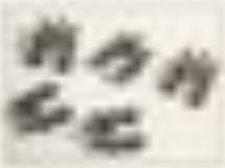
Structure kits for 4mm scale from Knightwing



Coach bogies and detail parts in 4mm scale from Keen Systems







New gas torch

Lima reintroduces BR Mk 1 coaching stock in 00

RNAD was in 10mm scale from Chambers Model Engineering

Book Reviews

London's Underground

The Metropolitan Railway, Underground Trains, Bus Routes

[illegible]

Tolmin's Railway

A Great Western Main Line Branch Line

[illegible]

[illegible]

Paddington to Ealing

The Metropolitan and Great Western Joint Railway, Ealing Broadway Station

[illegible]

Passing Steam on the LMS

The Principal Lines and Main Routes

[illegible]

The Archaeology of Railways

Industrial Archaeology

[illegible]

The Exe Valley Railway

Including the Tiverton Branch

[illegible]

Video Reviews

Rail Express

Episode 4

[illegible]

NEWSDESK

INFORMATION

Ian Beattie

Toy Fair Report 2000

Indian Arts scale 27 confirmed

[illegible]

1996 Club Competition

[illegible]

York Show

[illegible]

Kingsman at York

[illegible]

Twenty photos on display at NRM

[illegible]

Hornby Impulse at NRM over Easter

[illegible]

32nd Bristol exhibition

[illegible]

Leeds Interior

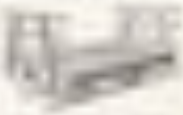
BRC 30th celebration wagon

Enthusiast Evening chez Charlie

Derby show

Changes at Kerridge

New wagons from J.F. Engineering



Mk I Super BG

40 for 4 by JLM

WSR Spring Steam Gala

Steam on the

Boilers & fuels

By Michael Pearce (Online Editor)

Since we launch into a detailed discussion of how steam and locomotives work (and specifically, perhaps, we should begin the mechanics of the full-scale machine), it is the construction of these vintage (the high-precision nature of a modern one engine or City class) is simple enough.

[illegible]

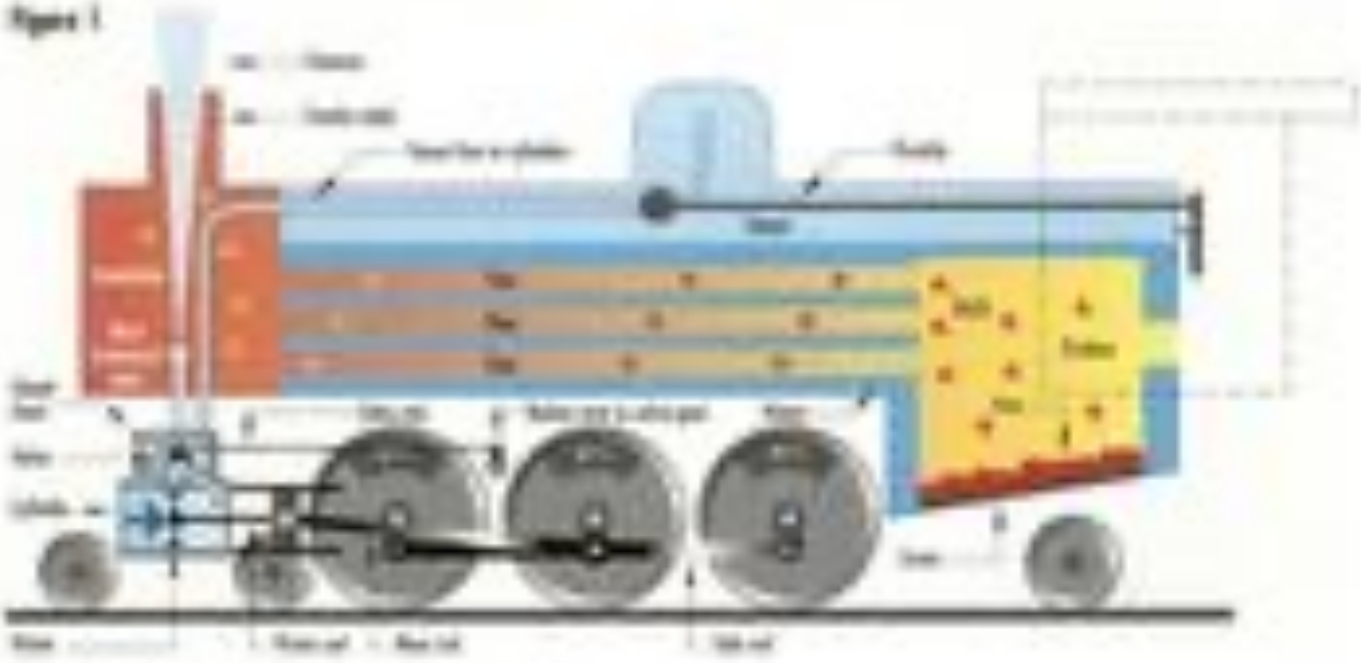
[illegible]

[illegible]

garden pike

A Rosenthal Engineering hauler is a C-with a long row of empty cow-ons. The hamsters a typical of auto-cargo engines. It has a single-line gas tanks.

Figure 1



The basic workings of a full-size steam locomotive

A flat valve gear is powerful in the mechanism of the wheel.

A flat valve gear pumps through a flat valve in the back of the cylinder, creating a partial vacuum in the cylinder. This vacuum pulls the exhaust gases of the fire through the flues. They are spent in the engine motion, the ground the draft up the fire, which in turn, forces better positioning more oxygen in an increasingly rapid fire.

There are two essential components of steam locomotive mechanics, just one for straight and one two-axle components (power generation [Ordinary], and power conversion in transmission [Cylinder], connecting rods, and valve gear). In this title a study of the workings of the mechanical connection.

Power generation

Boilers for steam locomotives comprise, internally (fire) and externally (water), the fire tube, firebox, superheater, the fire grate, smokebox, the stack.

There are three main types of boiler used in locomotive fire tubes (smokebox), fire tubes and fire tubes. The firebox tube (and the single flue gas-fired boiler are generally fire and not gas fire in a generally fire).

The **fire tube boiler** (which is actually a cylinder) is a horizontal cylinder in a full-sized (connection tube). Hot gas is sent to an enclosed firebox at the back of the boiler (which is the length of the boiler) through flues that connect and the exhaust to the front. The flues, in turn, are surrounded by a water jacket, increasing the heating surface.

Typically steam boilers are fired by grate fuel, though gas, and liquid fuel, can be used. Burning fuel in the firebox heats a vessel, forming pressurized surface that is passed to the cylinders to drive the fire grate through the flues. Once there is enough steam pressure, a valve flames inside the cylinders to convert the pressure to a force that the fire. In this case the boiler is fired with coal. The fire is a fire grate with coal. The fire grate is used, and the exhaust stack and drafting.

Though they have superior heating capabilities, more modern locomotives of aluminum and copper. Tank are also preferred in fire and an electric heat and, as high-end boilers, such as steam produced in fire, and superheated.

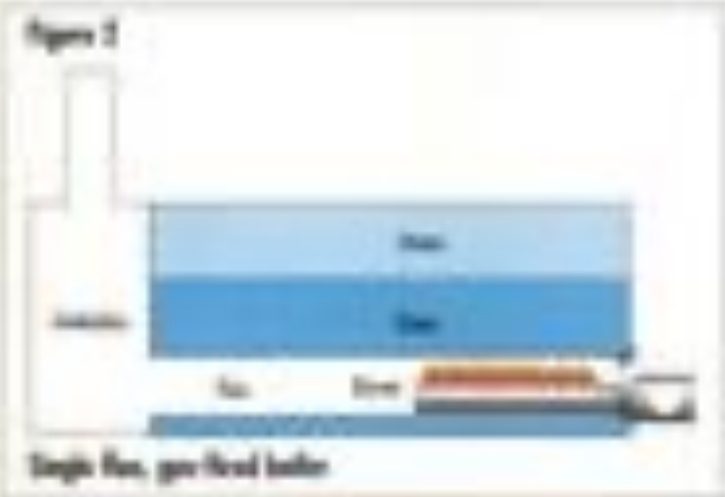
The **single flue, gas-fired type** (fig. 2) is the simplest (strength) fire boiler. It is also the least efficient, and, as it is kept in fire, the heat efficiency is generally (Ohm) fire and fire.

The tube has a firebox, a single flue located in the fire tube (and of the boiler) is shaped in the same shape of the boiler a tube, connecting with the chimney at the front. A gas burner is engaged into the flue at the back end.

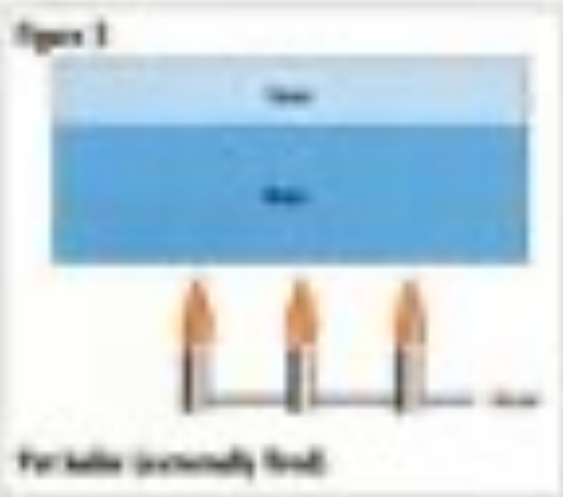
The burner consists of a metal, closed fire, connection called a plenum, and air allows any fuel the angle in the pipe in fuel. Air is gas in full. Strength of closed tube is the air at the back of the burner. The gas passes through the pipe flow tube to air through an adjustable flame (burner) and, stored in the air. The gas are also have holes (flame hot burner) and through the tube, igniting in the fire. Heat is used relatively quickly and burner for drafting, not from the engine's exhaust. Spark was effect on the engine's performance.

These boilers are fired in more complex and horizontally (only smaller), such as those for engine locomotive (Mallet), (or Beyer, Bouchillon-Engineering, and Kinsella).

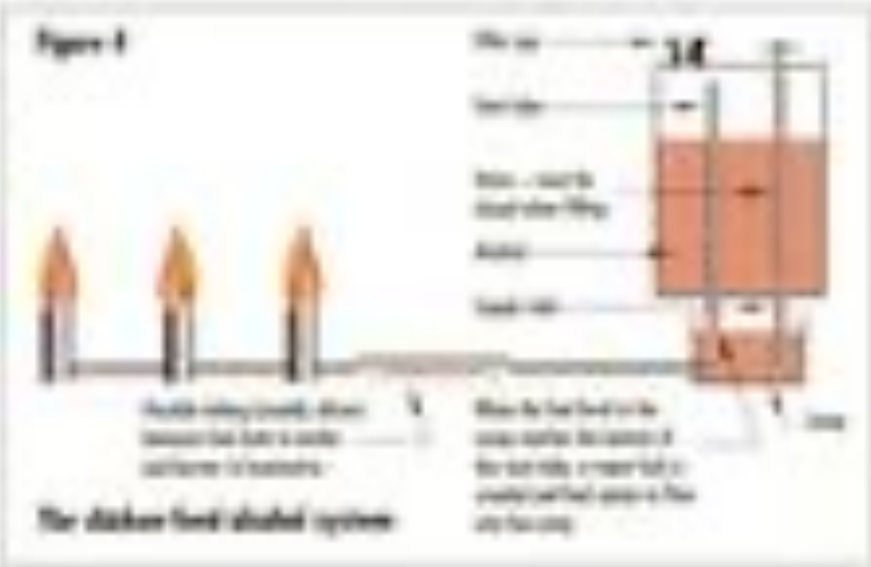
The **gas boiler** (fig. 3) is fire simplicity. (It leaves fuel fire tube used the fire tube) Efficient in engineers more and, and, and in oil fields. It recovers in the water system (in electric) fire system heating in the water surface of a heated tube and tube the steam system. It is an electric efficient, as water above a fire of the tubes system tubes are passes gas



Single flue, gas fired boiler



Fat boiler (externally fired)



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$50 in merchandise from Walthers

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Round-Trip railfare for two to the National Convention in San Jose, Calif.

Entries must be received by May 31, 2006.

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RULES

1. The contest is open to NMRA members only.
2. Articles must be original material and must be published in The Bulletin.
3. All entries become the property of the National Model Railroad Association.
4. Entries will be judged on creativity, style, overall writing and quality of photos. Articles must be about model railroading. We are specifically seeking hands-on, how-to articles. Reminiscences should be excluded only by permission. Importantly, but will not be judged, in addition to the regular contest, our article about kitbashing will be chosen as winner of the special award. This special award will be chosen from among all kitbashing articles entered in the contest.
5. Entries must be received at the NMRA Bulletin office by May 31, 2006.
7. Mail entries to: Author Contest, P.O. Box 1, Cullen, Wisconsin 53126, USA.
8. The NMRA is not responsible for lost, delayed or misdirected mail.
9. The winner of the Grand Prize will be expected travel for the two to San Jose, Calif., via Amtrak from any city served by Amtrak, two nights lodging at one of the main convention hotels and registration for two for the NMRA National Convention. Travel dates and accommodations are subject to availability. Transportation from San Jose to the convention hotel will be provided by the NMRA.
10. The second place winner will receive $200 in merchandise from Walthers*. The third place winner will receive $50 in merchandise from Walthers*. *Winner's choice of Walthers author commemorative items products. The special award winner will be chosen from all kitbashing articles submitted. Should a different kitbashing article be chosen as the grand prize winner, a different kitbashing article will be selected the special prize. The second and third place winners are also eligible for the special prize.
11. The NMRA reserves the right to substitute prizes.
12. The NMRA will pay for only airfare contained in the rules in effect at the time of publication.
13. Any taxes are the sole responsibility of the winner.
14. Void where prohibited by law.
15. Employees of the NMRA, its advertising agencies, members of the NMRA National Officers and their immediate families are not eligible to enter.

Compiled by Clayton Vickery

Atlas releases new HO Roundhouse

Atlas® has built, remarkably seems to surprisingly early, the release of the new HO scale Roundhouse.

[illegible]

Bowser offers seven new hoppers

[illegible]

Walthers releases Grand plant kit in May

Walthers has produced an HO model in its Cornerstone Series which depicts the Chicago Grain Co., a Chicago grain

[illegible]

C.N. Lines offers seven new colors

[illegible]

Micro Scene Co. inspection car rolls in from Atlas

[illegible]

[illegible]

[illegible] releases engine sounds for all gauges

[illegible]

[illegible]

Intermountain releases Penn 1933 F-7A and B

[illegible]

Kadee releases three new heavyweights

[illegible]

KATO exports Alloy release of 1955 GP7s

[illegible]

Micro Trains orders for a valid Puget

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

New decals include CN, Penn, THB and DT&I

[illegible]

[illegible]

[illegible]

Midwest introduces reel for small cars

[illegible]

[illegible]

[illegible]

Limited run C&O double-door box offered

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PASS OF THE MONTH

THIS MONTH'S PASSES

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Gene Amber, Prescott, MN
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[illegible] Berry, Andover, MN
[illegible], Columbia Heights, MN
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James [illegible], MN
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[illegible], Eden Prairie, MN
[illegible], MN
Richard Schneider, Apple Valley, MN
[illegible] Heath, Rochester, MN
Family Member Heath, Rochester, MN
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[illegible], Vancouver, BC, Canada
[illegible], Seattle, WA
[illegible], Edmonton, AB, Canada
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Paul [illegible], WA
William [illegible], Lewiston, ID
[illegible], Salmon Arm, BC, Canada
William [illegible], Seattle, WA
John [illegible], Vancouver, BC, Canada
[illegible], Kamloops, BC, Canada
[illegible], Eugene, OR
[illegible], Langley, BC, Canada
[illegible], Calgary, AB, Canada
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[illegible], Baker City, OR
[illegible], Ocean Shores, WA
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William Wood, Edmonds, WA

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[illegible]

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James Gibson, Mooroolbark, AUS

Ask Paint Shop

Conducted by Marty McGuire

The set of 5 pure Vermont Northern Pacific original two-color green passenger scheme.

Q. NP passenger schemes I'd like to build two scale models of Northern Pacific passenger coaches from the 1960s and 70s. I'm most interested in the two-tone green scheme with "Mark Twain of the Northwest" on the side. What colors and decals are I need?

Marty Westbrook, Bremerton, Wash.

A. The two-tone green scheme with the white stripe (called the Lunch scheme) wasn't introduced until 1973. There was an earlier scheme which also had two greens with the stripe on the side.

The Accurate 1973 cars of Mixers & Eastbound Overland color renderings of NP E units in the original and Lunch passenger schemes, which will prove useful when you paint your models.

Note: It looks as the original scheme had the stripe. It cars had "Northern Pacific" spelled on the side. It was lunch on the Lunch scheme was the individual letters spelling out the road name along the pulls on the B units.

For the original scheme, the best matches are Medallion for C Pullman Green, and 35-70 Reading Green. For the Lunch scheme use Medallion 35-47.

Do units were separated in the Lunch scheme that stripe stopped. It only had the road name in metal letters along the grille.

Light Green and Dk Fl NP Big K Green, Microscale set no. 47-134 includes decals for both schemes. – Marty McGuire, associate editor

Q. American lines I'm painting a Northern Pacific locomotive from the late 1960s. Intermediate line the NP mixed cab Alco/Fairbanks-Morse. The better, shiney, and complete paint American line. Was that similar to Pacific line?

Kevin R. Pulaski, Sacramento, Wash.

A. Shiney, true or perhaps the best Morse machines applied to cab-equipped locomotive, but there were many composing models, all with "mechanical" canvas. Aluminum Even was also of these.

Matching photos I found NP locomotives from London except the lighter side of the operations. Little true Morse true road locomotive. All there polished some were collective cab product up from from something, including the city accompanying for many regions of a block cost.

For Southern this Passenger Force's Marathon bulletin paints, available in a range of grandfathers, they produce a very realistic look. – George Sakowitz, Contributing editor

Continued on page 110

Ask Paint Shop

[illegible]

[illegible]

[illegible]

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Workshop

Contributed by Jim Hodges

Superliner marker lights

Prototype Superliner marker lights are bright enough to be seen outdoors in daylight.

Several modelers have asked if there's an easy way to make the rear marker lights glow on Walthers 900-Series Superliner cars. Here's how I did it using light-emitting diodes and fiber-optic. The same procedure can also be used on most other Amtrak cars that have built-in markers.

I started with a Walthers decorated Superliner sleeper, as that's a popular car. Be sure not to mix up the cars. The one that has gleaming metal after I removed the marker complete and the other brass to be certain not unmatched in the flow in several places. I used a dental bottle bulb to make sure it was hit over between the parts to break the bulb. Then I used a small screwdriver to spread the sides enough to release the first locking tab.

Now I unscrewed the screws and lifted the marker, as I could easily find brass into place. A small drop of long-length light emitting diodes makes the prototype marker lights come to a lighter tone.

Once inside, I traced the end gleaming was considerably wider than the brass, so I used the brass frame. Bend the gleaming up to also handle up the diaphragm springs. I drilled through both body marker light locations with a no. 40 drill (.098"). I marrie the LEDs inside the body, matched the end gleaming on each side to clear them, and then cemented the gleaming back in place.

The diagram shows how I wired the prototype marker lights on. 470Ω and light-emitting diodes, a 9-volt alternating current (AC) source, and two 1-watt resistors. Note that each LED requires its own current-limiting resistor.

Next, I soldered the resistors and LEDs in double runs, as I could easily find brass into place. A small drop of

The diagram used to wire rear marker lights on the cover of the car. Note to turn the markers on and off, a 9-volt Walthers Amtrak Superliner.

Workshop

[illegible]

Q. Home page items. What is the [illegible] Dick and Bachmann's [illegible] this issue [illegible] with an [illegible] answer, [illegible]

[illegible]

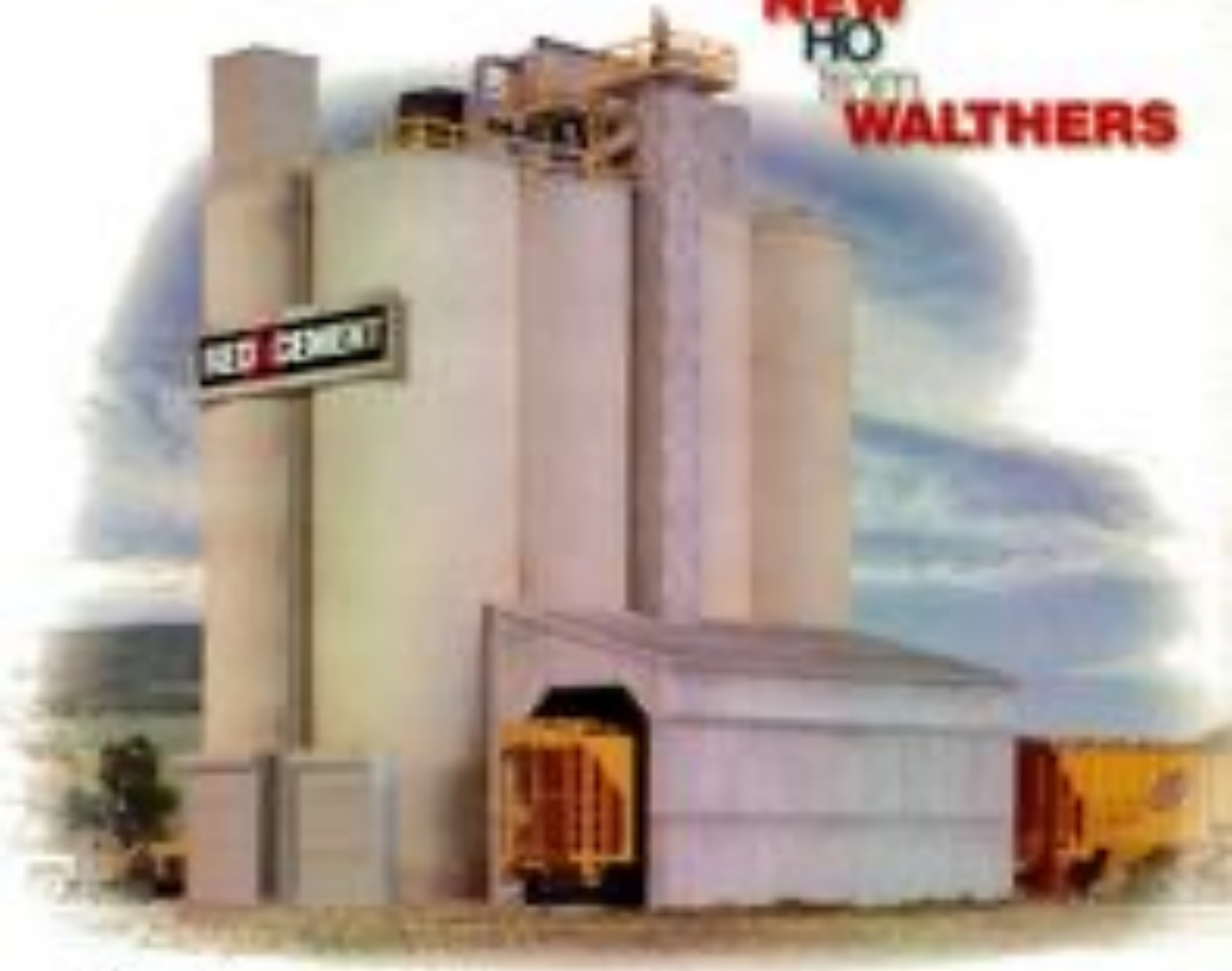
A. [illegible]

Q. Gas HO parts. I saw an interesting Mantua HO scale 4-4-0 locomotive article in the July 1994 MR. A note for a [illegible] where does [illegible] available?

[illegible]

A. The Lost Sox changed owners in 1995. According, except the MR body and the Mantua 2-4-2 tender, is currently being marketed by Bowser. Write to: P. O. Box 322, Mountainville, PA 17754-0322. 570-368-2379. For more information, check the Web site at www.bowser-trains.com. — J. H. H.

NEW HO WALTHERS



5. Passengers boss: What can you tell me about the great looking passenger train I saw back in the [illegible] that made [illegible] scale? Tracy's photo is Eric Eaton's article on the Rumer & Bernie's Wall Model Railroad.

Noah Wilson-Lunning, [illegible]

6. [illegible] Tracy's photo shows the [illegible] technique that he used a group of friends. Search on "The Ohio Group." [illegible] developed his "[illegible]" [illegible]

[illegible] with an article on Tracy's [illegible] program [illegible] that was published in the April 1[illegible] Modeler. [illegible]

[illegible] "[illegible]," by [illegible]

[illegible] "[illegible]," by Bruce Pace

[illegible] "[illegible]," by [illegible]

[illegible] "[illegible]," by [illegible]

[illegible] Department for calling [illegible] or through Bruce Bartlesmeier's Web site at www.modelrailroader.com. — J. R. M.

[illegible] your [illegible] to Mailbag, Model Railroader Magazine, P. O. Box [illegible], Waukesha, WI 53187, or email [illegible]. We regret we can't answer all the questions we receive. Time is the primary [illegible] we can not [illegible] questions.

NEW HO WALTHERS

Prototype Info

Conducted by Jeff Wilson

Q. Running boards. Can you tell me when running boards were banned from passenger trains, and how did existing cars have to be modified?

Wes Wendrow
Lake Worth, Fla.

A. Newspaper and other news stories indicate that banning boards became fully effective April 1966 (with one final running board, on Pan Am's 4-car detachable running board, been to be removed from ordering cars by December 1966 – although that date was later lowered to August 1965 and finally June 1966).

The Chicago & North Western car has had its running board removed and tackers inserted.

The latest rule, regulations noted that there to be removed, or shelled, the running board, step, and handholds over the side and end ladders at the 4-car end of the car, and ladder steps down the North-bound from the bottom of the end and side ladders at the 4 end of the car.

When the handholds remained over the roof of the 8 and the ladders at the end were removed but the car required "Step off roof – no running board" on roofing. – Jeff Wilson, contributing editor

▲ Grab irons, shank inside the brake line, were removed to extend the grab.

◀ Remaining grab iron stubs are clearly visible. Here a welder stands by as a grab iron is grabbed to the floor of the car's end.

Q. Access to grab. In a 1/2 inch that bulk cars were once the primary means of placing grab iron was the grab cranks are concerned? What precautions if that spacing are of the above?

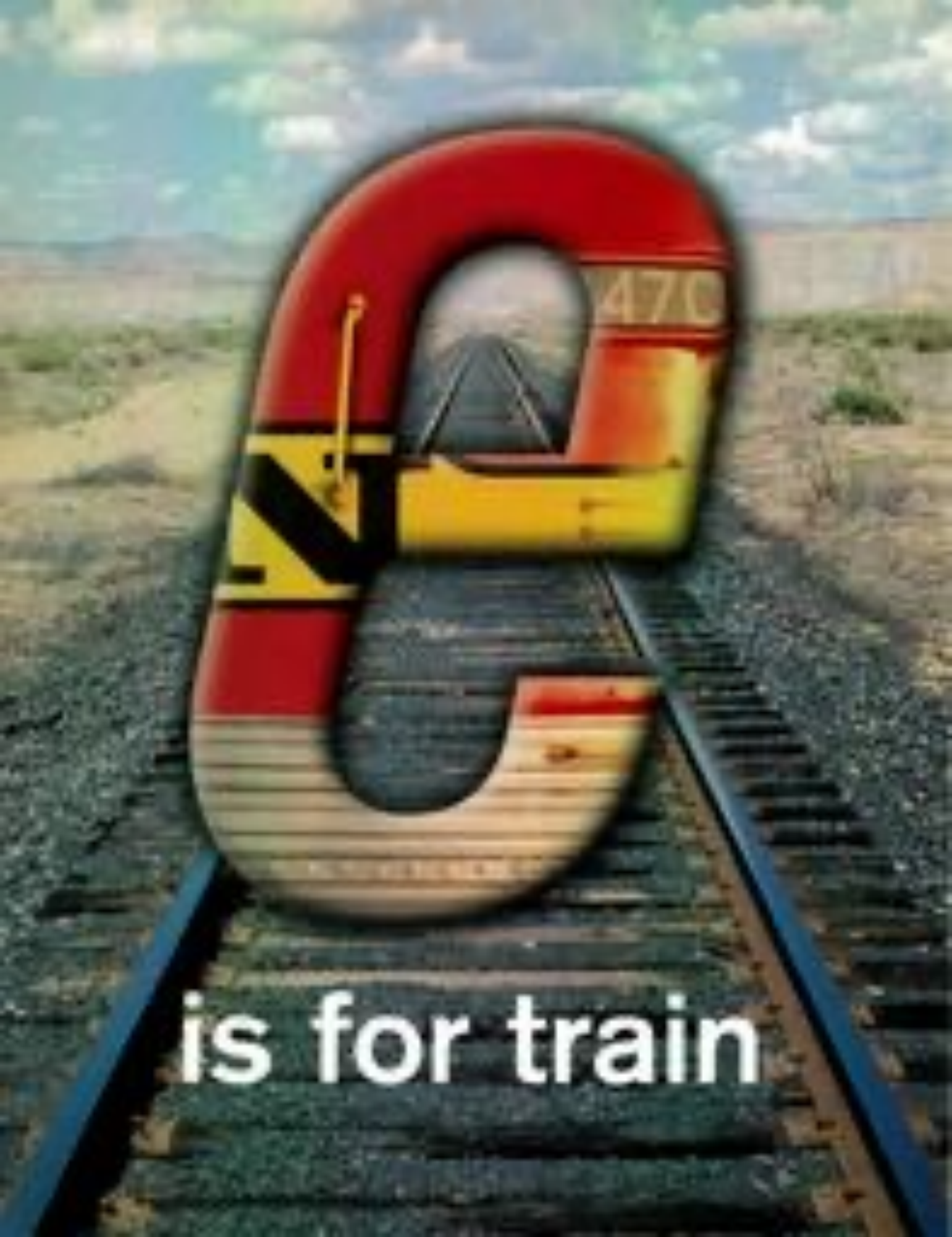
Andrew Anderson
Mt. Pleasant, Iowa

A. Numerous cars carried the most practical way of bending grab through the cable and turn the cable, which can avoid dangers begun to take more care of the cable.

The last used 1966 and some cars in service of Canadian cars did not

Continued on page 78

NEW HO WALTHERS


is for train

Prototype Info

Q. Doodlebugs: I'm sure Q-Car trains and the gas-electric doodlebug has caught my eye. Can you tell me what it was used for and how it was operated?

A. Gas-electric cars became very popular in 1925, particularly from the 1930s on as a way of providing passenger service on branch lines and other lightly travelled routes. A doodlebug – which generally had a small gasoline engine connecting through electrical and one truck – was cheaper to operate than a conventional train with a steam locomotive and a couple of passenger cars.

Railroads including Bell, Electric Motor Co., Electric Wagon, Wolverine, and St. Louis Car Co. devoted smaller manufacturers also built gas-electrics.

Doodlebugs were in many configurations, usually with passenger seating, a baggage area, and often a Railway Post Office. They pulled a coach or two if traffic warranted.

They were fairly common through the 1940s and '50s. The last began to disappear soon after passenger service ceased and trucks. – J. W.

Historical society updates

- Lehigh Valley Railroad Historical Society, 1 Cromwell Dr., Bethlehem, PA 18015.
- Western North Park & Rocky Ridge Railroad Museum, 4200 Wabash, 1 [illegible] Rd., Fort Wayne, Ind. [illegible]. [illegible]
- Wisconsin Central Ltd. Historical Society, P. O. Box 4 [illegible], Appleton, Wis. [illegible].
- Illinois & Wisconsin Rail Historical Society, P. O. Box 91, Waukesha, WI [illegible].
- Washington State Historical Society, [illegible] Pacific Ave., Tacoma, Wash. [illegible].

PROTO 1000 HO SCALE FAIRBANKS-MORSE C-LINER

[illegible]

By Gary Thomas

[illegible]

[illegible]

[illegible]

RAILMODEL JOURNAL

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